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NYAYA

THE SCIENCE OF THOUGHT

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THE PRACTICAL PATH, etc., etc.,

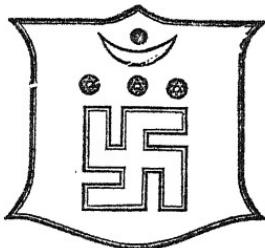


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श्री वीतरागाय नमः

It was customary with the ancients to offer obeisance to the *Holy Tirthankara* (God), by praising His divine qualities, before commencing any religious or educative work, so as to destroy and burn up, by the fire of contemplation of divine glory, all predisposition to bigotry, prejudice and other like causes of wrong knowledge. Having the same object in view, I also bow to the pure *Veetraga* (passionless) *Arhanta* (God), who has attained to omniscience by the destruction of the knowledge-obstructing energies of *Karma*, in whose all-embracing *Jnana* scintillate, like stars in the infinite firmament, all the objects of knowledge of the three periods of Time, the past, present and future, and whose Word is the final authority to be appealed to in case of doubt and dispute.

C. R. JAIN.

PREFACE.

‘*The Science of Thought*’ is intended to be a brief exposition of the view of Jaina Philosophy on the nature and types of *Jnana* (knowledge) and the working of mind in reference to logical inference. The book is not a translation of any particular work, though it is principally based on two small treatises, the *Pariksa Mukha* and the *Nyaya Dipika*.

The author of the first-named work was a certain *Acharya* (philosopher-saint) known by the name of *Sri Manikyananda*, who flourished about the commencement of the ninth century of the Christian era. The other book, the *Nyaya Dipika*, is a much later work, and was composed by *Yati Dharmabhusana* about the year 1600 A. D. Both the *Pariksa Mukha* and the *Nyaya Dipika* are, however, based on earlier and bigger works, and do not claim to be exhaustive.

In presenting to the modern reader the views of the Jaina *Siddhanta* (Philosophy) on such an important subject as the *Science of Thought*, I cannot help giving an expression to a consciousness

of my inability to do full justice to this important department of knowledge, but am borne up by the hope that the book may succeed in attracting to the field of research more competent hands who may be able to bring out the excellence of the Jaina view better than I have been able to do.

HARDOI :

15th November, 1916.

C. R. JAIN.

N Y A Y A

THE SCIENCE OF THOUGHT.

CHAPTER I.

The word *Nyâya* generally means a path or way, but in connection with philosophy it implies the method of accurate thinking, hence, the system of Logic, or, in general terms, the Science of Thought, which aims at the acquisition of right knowledge or truth.

Right knowledge may be defined as that which is destructive of ignorance, the chief cause of mishaps.

There are three kinds of ignorance, namely, (1) *sansaya* (doubt), (2) *viparyaya* (wrong knowledge) and (3) *anadhyavasâya* (absence of knowledge).

Doubt is the state of uncertainty about the correctness of two or more possible views of a fact.

Viparyaya signifies knowledge which is untrue,

e.g., the idea that the whitish, shining surface of an oyster-shell contains silver.

Anadhyavasāya is the state of mind which implies an attitude of indifference, indefiniteness or agnosticism. It is the state of consciousness in which the mind is aware of the existence of an object but does not know what it really is.

Knowledge which is free from these three blemishes, that is to say which cognises the objects of knowledge as they exist in nature, is called *pramāṇa* (valid knowledge).

CHAPTER II.

All things are knowable, that is to say they are capable of being the object of knowledge on the part of some one or other. That which is not capable of being known by any one at all cannot have an existence, for that which is not provable is non-existent. Hence, if things exist, they must admit of proof. But things which are not known to any one at all are incapable of being proved. Therefore, that which is not known to any one at all is non-existent. Were it otherwise, we would be proving that of which we have no knowledge whatsoever, and the very existence of which we have absolutely no reason to affirm. Therefore, all things are knowable.

CHAPTER III.

Right knowledge depends on accurate observation and thought, and accurate thinking implies exact description of things.

The very first step towards accuracy of thought is to give a name to the subject of enquiry. This is called *uddeṣa*, and is obviously a necessary step in the science of thought, for no discourse or discussion is possible without first naming or otherwise marking out the subject of controversy.

The object of defining a thing is to enable it to be distinguished from all other things. Therefore, every true definition must mention the distinguishing feature (*lakṣana*) of the object to be defined (*lakṣya*).

A *lakṣana* may be either (1) *ātmabhuta*, i.e., an inseparable property of the *lakṣya*, as heat, of fire, or (2) *anātmabhuta* which is not an inseparable attribute of the thing defined, e.g., beard, of man. The main feature of distinction between these two kinds of *lakṣana* lies in the fact that while the absence of the *ātmabhuta* quality would at once make the thing to be defined non-existent (e.g., fire without heat), the destruction of the *anātmabhuta* would not be fatal to its existence, e.g., a beardless man.

Every true *lakṣana* should be free from the following kinds of faults :—

(1) *Avyāpti* (non-prevalence or non-distribution

amongst all the members of a class), as in the statement, 'man is a bearded being.' Here it is clear that the beard is not a distinguishing feature of all human beings, for females and children do not grow it.

(2) *Ativyāpti* (over-prevalence) which occurs when the feature is also found in things other than the *lakṣya*. The statement: 'the parrot is a winged creature,' is an instance of this defect, for all birds have wings.

(3) *Asambhava*, or that which is contradicted by perception or some other kind of knowledge. To describe man as possessed of horns is an instance of this blemish.

Thus, the true *lakṣana* is a quality which is actually found in every member of the class but which does not exist outside it.

CHAPTER IV.

Knowledge is the nature of the soul. If it were not the nature of the soul, it would either be the nature of the not-soul, or of nothing whatever. But in the former case, the unconscious would become the conscious, and the soul would be unable to know itself or any one else, for it would then be devoid of consciousness; and in the latter, there would be no knowledge, nor conscious

beings in existence, which, happily, is not the case.

• It might be urged that knowledge, consciousness, or the power to know or cognize is an independent quality which, when it comes in contact with the soul, enables it to perceive and know itself and other things, but this is untenable on the ground that qualities only inhere in substances* and cannot be conceived to exist independently of concrete things. The fact is that qualities are pure mental abstractions made after observation of a number of individuals ; no one has ever seen them existing by themselves.

Besides, it is permissible to ask whether these qualities be indivisible and all-pervading, or atomistic ? But if we say that they are atomistic, then the cause of abstraction is thrown over board,

* That qualities inhere in substances is a self-evident truth, for they cannot be conceived to exist by themselves. If they could lead an existence independently of substance, we should have softness, hardness, manhood and the like also existing by themselves, which would be absurd. Moreover, if qualities were capable of leading an independent existence of their own, existence also would exist separately from all other qualities. But this would make existence itself a featureless function or attribute of nothing whatsoever, on the one hand, and all the other remaining qualities simply non-existent, on the other, because existence would no longer be one of their attributes. It follows, therefore, that qualities cannot be conceived to exist apart from substances.

for the numerous ‘atoms’ of consciousness are really only so many concrete individuals. On the other hand, if it be said that consciousness is an indivisible existence, then it must be all-pervading, so as to be able to enter into the constitution of every living being at different places in the world. But on this hypothesis the real knower or source of knowledge being one and the same throughout the universe, there should be no differences in respect of knowledge among the individuals, which is not the case, as every one’s experience shows.

There is only one other alternative, and that is that the quality is all-pervading but the differences in knowledge depend on the nature of individuals themselves ; but in this case knowledge ceases to be a property of consciousness, and becomes dependent on the nature of souls, for if it were a function of an indivisible and all-pervading quality knowledge of one soul, wherever acquired, would immediately become the common property of every other soul, on the ground of the real knower being only one and the same.

It follows, therefore, that consciousness cannot be separated from the soul. The absurdity of the opposite view may be further emphasized by studying the nature of both when separated from each other.

Firstly, consciousness separated from a knowing

being would exist either as a knower, or as an object of knowledge. But not as a knower, for in that case the separation would mean nothing ; nor yet as an object of knowledge, for as an object of knowledge it would only enjoy knowability, but not knowingness, or cognisance.

Secondly, the soul separated from consciousness can exist only either as a knower, or as devoid of knowledge. But in the former case consciousness adds nothing to it, and may be ignored ; and in the latter it is inconceivable how a thing whose nature is ignorance* can ever become a knower by its union with consciousness. It is thus clear that consciousness is nothing but the nature or function of the soul ; in other words, the soul is a substance which is characterised by knowledge or consciousness.

CHAPTER V.

Every living being is endowed with the capacity for infinite knowledge, because (1) all things are

* If any one would seriously reflect on the difference between a living being and a looking glass in respect of knowledge, he would not be long in discovering that the former is capable of feeling the states of his consciousness, i.e., the modifications of the substance of his being, while the latter is not. Hence the image in the glass is not perceived by the glass, while an impression in consciousness is immediately cognized by the soul.

knowable, and (2) because knowledge, or consciousness, is the very essence of the soul.

In respect of the quality of knowability, it is sufficient to say that every thing that has existence for its characteristic must be known to at least one soul, as already proved. But since all souls are alike as regards their substantive nature, they must all be endowed with the same or an equal capacity in respect of knowledge. Hence, what one soul can know all others can also become aware of.

As regards consciousness also, it is evident that the soul cannot but be possessed of the potency for infinite knowledge, unlimited by Time or Space, for knowledge consists in the modifications or aspects of its own substance (consciousness).

Putting these conclusions together, we arrive at the inference that the soul's consciousness or knowing capacity is unlimited within the range of the possible, so that only the impossible lies beyond its knowing capacity. But since all that exists is also limited to the possible in nature, and since the possible in nature corresponds to the possible in knowledge or thought, on account of the quality of knowability which has been seen to be an inalienable attribute of things, it follows, with the certainty of logic, that nothing that the soul can never know can ever actually happen or exist in nature.

Therefore, all souls are endowed with potential omniscience.

Some people think that it would be more conducive to their peace of mind to have only one omniscient soul, but this is untenable on the ground that souls being pure spirit in reality, the essential nature of one must naturally and necessarily be the essential nature of all others. Thus, there would be no differences in the possibility of development in respect of knowledge among different souls, although they might differ from one another in so far as its actual manifestation is concerned.

Thus, the positing of only one omniscient soul together with a large number of those with limited knowledge is clearly an instance of illogical thought. There can be differences in the quality or function of beings only if they differ from one another in respect of their substantive nature, but the fact that consciousness is common to them all, including the one postulated omniscient soul, shows that they are not different from one another in that respect.

There remains the possibility of our postulating the presence of an extra conscious quality in the one omniscient soul, but even this supposition does not advance its case any further, because pure spirit is not a compound but a simple substance, or reality. Nor can it be called a compound without

being deprived of its immortality, since all compounded effects are liable to dissolve and disintegrate. It follows from this that the one omniscient soul cannot be a real entity, or thing in itself, if it is to be regarded as a compound of the ordinary consciousness *plus* an extra conscious quality.

Furthermore, the only substance which can become associated with spirit, is matter, an unconscious material which can only act as a veil to curtail knowledge, but which is otherwise quite incapable of augmenting* it in the least.

We thus conclude that omniscience is the very nature of the soul-substance, not of any particular soul exclusively.

Those who deny the possibility of omniscience on the authority of certain pious *rishis* (saints) forget that if testimony were admitted on the point it would necessarily end by proving that which it was adduced to refute, for he who would deny the very possibility of omniscience in others would have to be omniscient himself.

* The common error of materialism which imagines that musk, coffee and other similar substances actually give rise to consciousness seems to have arisen from the fact that these substances partially remove the obstacles from the path of the little 'gleam' with which we adjust our daily affairs. It is, however, quite inconceivable how an unconscious thing can possibly give rise to or increase the quantity of consciousness, when even the knowledge of one soul—a conscious being—cannot be tacked on to another.

CHAPTER VI.

In knowing anything one only knows the states of one's own consciousness, for knowledge is the very nature of the soul. No one can possibly know another except by observing the effect of the presence of that other on one's own consciousness. Hence, the soul only takes note of the modifications of its own substance, called states of consciousness.

CHAPTER VII.

The soul is a reality, or substance, because it exists, and because existence is a quality of substance.* If existence were not a quality of substance, it would appertain to that which is devoid

* The word substance used in connection with the soul need cause us no alarm, since it merely denotes subsistence, existence or being, and is not confined to matter. 'In philosophy, substance is that which underlies or is the permanent subject or cause of all phenomena, whether material or spiritual ; the subject which we imagine to underlie the attributes or qualities by which alone we are conscious of existence; that which exists independently and unchangeably, in contradistinction to accident, which denotes any of the changes of changeable phenomena in substance, whether these phenomena are necessary or casual, in which latter case they are called accidents in a narrower sense. . . . Substance is, with respect to the mind, a merely logical distinction from its attributes. We can never imagine it, but we are compelled to assume it. We cannot conceive substance shorn of its attributes, because those attributes are the sole staple of our

of all substantiveness. But that which is devoid of substantiveness cannot be the subject of any quality whatsoever, because qualities only inhere in substances. Hence, if existence were not a quality of substance, it would appertain to that which is incapable of being the subject of any quality whatsoever, and therefore, also of existence, which contradicts the proposition itself. Therefore, existence is an attribute of substance, and, conversely, that which exists must be a substance.

CHAPTER VIII.

Every soul is an indivisible unit of consciousness, that is to say, an individual. If it were not indivisible, it would consist of two or more parts, which would be either similar or dissimilar in function. But not dissimilar, because two dissimilar things cannot exercise a common function. Hence, consciousness, the distinguishing feature of

conceptions; but we must assume that substance is something different from its attributes' (The Imperial Dictionary). Thus everything that exists must have some sort of substantiveness or subsistence; and it is this substantiveness or subsistence which is called substance. As Spinoza puts it, "existence appertains to the nature of substance." It is in this sense that the word substance is employed in philosophy. Thus souls and matter are both substances though of different natures as is evident from their attributes.

the soul, cannot be a property of more than one substance. The parts must then be all made of the same substance. But this also cannot be true, for in that case each part would exercise similar functions, multiplying the operation of consciousness exactly as many times as there are parts in a soul. We should then expect to find not one impression of an object perceived, not one memory of a recalled experience, not one inference drawn from a given set of premises, nor even one act of desire, willing or judgment on the part of the soul, but a multiplicity of them, determinable by the number of parts of which any particular soul were made. But this is contradicted by direct observation. Therefore, every soul is an indivisible unit of consciousness, *i.e.*, an individual.

The simplicity of the subject of inference is further established by the fact that no conclusion is possible in logic unless the major and minor premises are cognized by one and the same individual, for if the proposition, 'A = B', be held in mind by one man, and the premise, 'B = C', by another, neither of them nor any one else can possibly draw an inference from them. If the soul were made up of parts, those parts would similarly cognize different portions of a syllogism, thus rendering it impossible to draw an inference. Therefore, the soul cannot be a thing made up of parts.

The soul being an individual, or indivisible unit of consciousness, the idea of knowledge in reference to it is that of a state of consciousness which is neither the whole, nor a separated part of the life of the ego, but one of an infinity of interpenetrating and inseparable phases or aspects, each of which is pervaded by the all-pervading consciousness of the self. In different words, every soul is, by nature, an individual Idea which is itself the summation of an infinity of different, but inseparable ideas, or states of consciousness. But since all these ideas or states of consciousness are not simultaneously present in the consciousness of each and every soul, some of them must necessarily exist in a sub-conscious or dormant condition whence they emerge above the level whenever conditions are favourable for their manifestation. Thus, knowledge is never acquired from without, but only actualized from within. This is so even when we perceive a new object or are impressed with a new idea for the first time, for the soul can never know anything other than the state or states of its own consciousness. Hence, unless the soul be endowed with the capacity to assume a state corresponding to the stimulus from without, it would never have the consciousness of the outside object. This capacity really means the power to vibrate in sympathy with, that is to say at the

same rhythm* as the incoming stimulus. It is thus evident that an impression in or on consciousness differs from a statue in marble in so far as it does not signify the chiselling off or removal of any part of its bulk, but resembles it inasmuch as it is brought into manifestation from within the soul's consciousness itself. Thus, while all impressions may be said to lie dormant in the

* That an impression is in reality a kind of rhythm is clear from the nature of recollection which implies a revived impression. Memory, it will be seen, is not a picture gallery containing ready-made photos or reprints of past events, for the memory-images that arise in recollection are, in many instances, bigger than the perceiver thereof. This is especially the case with dreams which, at times, reproduce large cities, oceans and the like. It follows from this that recollections do not lie stored up in the form of ready-made images in the body or brain or the soul-substance, but are formed and projected outside there and then. But the only other thing that visual memory can be, if not a collection of ready made images, is the capacity to produce images, that is to say, the power to mould the material which enters into the composition of memory-images into characteristic shapes and forms. This means neither more nor less than the capacity to vibrate at different intensities or rhythm which by acting on a kind of very fine matter give rise to forms. The same is the case with respect to the recollection of impressions formed through the media of senses other than sight. They are not images in their inception, and cannot but exist in memory as so many different kinds of potencies or possibilities of recollection. It is these potencies of recollection which we have designated as different intensities of rhythm for the want of a more suitable term.

soul, in the same manner as all kinds of statues remain unmanifested in a slab of stone, they cannot be described as being created in the same way. There is no question of carving out anything in the case of an impression on the soul-substance, but only of a 'waking up' of a dormant state, or a setting free of that which was previously held in bonds.

Hence, all kinds of impressions, or states of consciousness, lie latent in the soul, and only need the removal * of causes which prevent their coming into manifestation, to emerge from the sub-conscious state.

For the foregoing reasons sense-perception implies no more than the resonance of an already existing impress, or idea-rhythm, set free to vibrate in response to the incoming stimulus. It is this responsive resonance of its own rhythm, hence, a state of its own consciousness, which is felt by the soul at the moment of cognition. It should be stated that the soul has no other means of knowing its own states than feeling them, though the word feeling is here used in its widest

* It will be seen that impressions arise not only from perception, but also from the activity of thought, since whenever a new idea is formed as the result of perception or inference a new impression is 'discovered' to enrich the stock of one's knowledge.

sense, and includes sensations of touch, taste, smell, hearing and sight.

CHAPTER IX.

The differences of knowledge among beings of different classes and kinds, as well as among individuals belonging to the same class are due to the operation of the Law of Karma, for the potentiality for infinite knowledge, that is omniscience, being the very nature of the soul, some outside influence is needed to prevent its becoming an actuality of experience. This external influence is the force of karmas, as is fully explained in such works as the Gommatasâra.*

It follows from this that knowledge really arises from within, and education is merely a drawing forth (from *e*, out, and *duco*, to lead) from the depths of consciousness. As the bondage of karma is loosened, new impressions are set free to manifest themselves, widening the field of perception and knowledge by bringing the soul in touch

* The Gommatasâra is a Jain work of great authority on the doctrine of karma, but unfortunately it has not yet been translated into English. Those who cannot have access to it are recommended to read the author's '*Key of Knowledge*' and '*The Practical Path*' which deal with the main features of the subject at some length.

with something to which it had remained irresponsive hitherto ; and, finally, when all the perception and knowledge-obstructing bonds of *karma* are destroyed, omniscience is attained by the potential becoming the actual.

CHAPTER X.

Knowledge illumines itself as well as its object at the same time, that is to say that in knowing anything the soul also knows itself simultaneously. If the soul did not know its own existence, nobody else could ever impart that knowledge to it, since instruction from without can never take the place of the feeling of awareness of one's own presence which is implied in self-knowledge. Besides, every one's experience will show that the one thing of which he is the most definitely and forcibly conscious is his own being.

Furthermore, every act of perception, and, in general, every kind of knowledge, implies the statement, 'I know it thus,' whether or not the state of consciousness expressed by the words be actually translated into thought, or word, or both. It is to be noted that unless appropriated by the soul, knowledge would be reduced to the condition of an image in glass which is not cognized by the thing in which it is reflected. If the soul were

not an appropriative being, it, too, would resemble a looking glass, and would content itself by merely reflecting the image of the object before it ; but it is obvious that it would have no knowledge in that case.

Further reflection would reveal the fact that the state of consciousness, 'I know it thus,' is not only necessary for knowledge to become the property of, or to be appropriated by the 'knower,' but would also be impossible unless consciousness illumined, that is to say knew itself. Now, since every one's experience bears testimony to this state, it must be conceded that the soul knows itself as well as the object of knowledge simultaneously, that is at one and the same time.

In addition to the illumination of the self and the object of knowledge, the process and the result, or fruit, of knowledge also occur at the same time, for the functioning of consciousness is necessary for an act of cognition, and the acquisition of knowledge resulting in the destruction of ignorance is a concomitant of such functioning.

CHAPTER XI.

The determination of truth is independent of senses, though the validity of knowledge at times immediately follows perception. This is

proved by the fact that the senses are not opposed to ignorance, which is to be removed, and since that which is not opposed to ignorance cannot be the means of its destruction, it follows that they are not directly concerned in the acquisition of right or valid knowledge (*pramâna*). If sense-perception were the same thing as *pramâna*, the Sun and the Moon should be of the size actually perceived. But this is absurd. That the senses cannot possibly be regarded as giving birth to truth, i.e., valid knowledge, is also evident from the fact that they are the causes of wrong knowledge also, e.g., the illusory appearance of water in mirage. Besides, that which does not know itself can never know another, because only that which is appropriated by a knowing being is called knowledge, as already explained. Hence, the senses not being appropriative—every one's experience and observation would bear this out—if not give rise to *pramâna*. They are merely instrumental in the passage of stimulus from the external object to the soul within, which is the true knower.

In some cases it does undoubtedly seem that valid knowledge accompanies sensual perception, but analysis would show this to happen only in cases of great familiarity with the object of knowledge, dispensing with the necessity for the

ascertainment of truth, which is almost as good as already known.

- We thus conclude that the senses do not give rise to *pramâna*, though they play no unimportant part in the process of perception.
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CHAPTER XII.

Pramâna is distinguishable from error by the fact that it cannot be falsified by any means, so that whatever can be shown to be false is not valid.

Pramâna arises in one of the two following ways, (1) in the case of familiar objects, immediately, and (2) in all other cases, upon further enquiry or experiment.

The same is the case with mental conviction, that is to say the consciousness of validity or certainty; it also arises immediately and from within in the case of familiar objects, but on further investigation in all others.

CHAPTER XIII.

- Things in nature are characterised by many-sidedness. Each of them presents a number of aspects which have to be known before we can be said to have exact knowledge of their nature.

The different points of view for studying things

are called *nayas* of which the *dravyârthika* (the natural) and the *paryâyârthika* (changing or conditional) are the most important.

The *dravyârthika* point of view only takes into consideration the nature of the substance or material of a thing, while the *paryâyârthika* confines itself to the study of the form or forms in which substances manifest themselves.

The importance of *anekântic* (many-sided, hence all-embracing) knowledge lies in the fact that no one-sided system of study can possibly aim at perfect validity and fulness of knowledge, being debarred from a general study of things from all sides by the very force of its one-sided absolutism ; for it frequently happens that the natural attributes of a thing are quite at variance with its manifested properties, so that if the attention of the student be confined to either of them exclusively, the resulting knowledge cannot but be imperfect, and, therefore, misleading also.

CHAPTER XIV.

Pramâna is either *Pratyaksha* (direct) or *Paroksha* (indirect).

The difference between these two types of *pramâna* consists in the fact that while the former springs from direct perception, the latter is

dependent on memory, inference and the like. The one may be said to represent the intuitive side of life, and the other the intellectual.

Pratyakṣa pramāṇa may be defined as that form of pure, unclouded clarity of *Jñāna* which, being altogether beyond description, is essentially a matter for experience. The idea is that it is not possible to describe direct *pramāṇa* by means of words, but that every one knows from personal experience what is meant by the term.

Pratyakṣa pramāṇa is not to be taken as equivalent to pure, undetermined perception, which, not being antagonistic to doubt, wrong knowledge or ignorance, can never be termed *pramāṇa*. The argument that the *nirvikalpaka* (unascertained or undetermined perception) is the *pratyakṣa pramāṇa* because it is caused or produced by the object itself, lacks the support of both the *anvaya** and *vyatireka** tests, since valid knowledge of unperceived things is a matter of common experience.

*The *Anvaya* is the statement of the necessary logical connection between the *Sādhya* (that which is to be proved) and the *Sādhana* (that which is to prove the existence of the *Sādhya*). The *Vyatireka* is the opposite of this, and implies the non-existence of *Sādhana* in the absence of its *Sādhya*. The following process of inference (syllogism) sufficiently illustrates both these types of arguments. There is fire (*Sādhya*) in this hill, because there is smoke (*Sādhana*) on it; for wherever there is smoke there is fire (*anvaya*); and wherever there is no fire there is no smoke (*Vyatireka*).

Besides, the knowledge of many of the states of consciousness, such as 'I am happy,' 'I am pleased,' and the like is obviously incapable of being produced by any object or objects, since there are no objects corresponding to happiness, pleasure and other similar ideas which might be perceived. It follows from this that *pramâna* cannot be said to be the product of objects.

Similarly, those who maintain that light is the cause of *pratyaksha pramâna* are also ignorant of the nature of valid *jñâna*, for *âloka* (light) is not even a cause of perception. If light were the cause of perception, it would be impossible to perceive its antithesis, *i.e.*, darkness, for darkness could not exist in light, and yet light would be required for its perception. The part which light plays in visual perception seems to be confined to the enlargement of the field of vision, though even this does not hold good in the case of all kinds of living beings, since certain animals such as the owl and rat, can clearly perceive things in darkness. It is also evident that light plays no part whatsoever in the perception of objects with senses other than sight, and that dreams are also seen without light. It follows from all this that light is not the cause of *pratyaksha pramâna* in any sense.

For similar reasons it is impossible to regard sense-organs as the causes of *pratyaksha pramâna*,

for they are not endowed with consciousness and do not know themselves. Moreover, they can never reveal that which does not affect them immediately, e.g., events of the past or future, or the deductions of reason. They are also limited to a certain range of vibrations, beyond which nothing can be perceived, for instance, no one has ever perceived an atom with the aid of his senses, though it is certain that atoms of matter must exist in nature. We, therefore, conclude that sense-organs also are not the causes of the direct type of *pramâna*.

It only remains to deal with the argument, that the *pratyaksha pramâna* is caused by the contact between sense-organs and the objects of knowledge, that is to say by the alighting of an organ of sensation on the object to be known. Here, too, it is obvious that the argument fails in the case of sight which 'perceives' the branch of a tree near by simultaneously with the moon which is at a considerable distance. Now, because actual contact is not possible at one and the same time between the organ of sight and two such objects as the branch of a tree close at hand and the moon, it follows that actual physical contact between sense-organs and objects of senses is not the cause of *pramâna*; and since what is not the cause of *pramâna* can never be the cause of the

pratyakṣa pramāṇa, it further follows that the theory under consideration is not founded on good reason. The absurdity of the position becomes perfectly clear the moment it is realised that there can be no contact between every object of knowledge and sense-organs, and that knowledge is not had of every object that comes even in physical contact with an organ of sensation—the eye, the ear and the like.

CHAPTER XV.

Pratyakṣa is of two kinds, viz., *sāmvyavahârika* and *pâramârthika*.

The *sāmvyavahârika* *pratyakṣa* is the kind of knowledge which is not characterised by full clarity. It is acquired with the aid of senses and mind, and is also known as *mati-jñâna*.

The *pâramârthika* *pratyakṣa* signifies pure intuition, that is to say knowledge acquired without the aid of senses and mind. This is also of two kinds, namely, *sakala* and *vikala*.

The *sakala pâramârthika* *pratyakṣa* means omniscience pure and simple, implying full and all-embracing knowledge, unlimited by Time or Space.

The *vikala pâramârthika* *pratyakṣa* also signifies knowledge acquired independently of senses and

mind, but is not unlimited like the *sakala*. It embraces two types of *jñâna* called *avadhi* and *manahparyaya*.

Avadhi jñâna (clairvoyance*) is the *pâramârthika* or direct knowledge of material things within certain limits in respect of (i) *dravya* (substance), (ii) *kshetra* (place), (iii) *kâla* (time), and (iv) *bhâva* (property or nature); and embraces a knowledge of some of the past and future lives of the soul.

Avadhi jñâna, it may be pointed out here, is to be distinguished from the false clairvoyance (*Ku-avadhi*),† which, though a kind of *pratyaksha*, is not *pramâna*. *Manahparyaya jñâna* (telepathy)‡ means intuitional knowledge of material things in the minds of others within the same four kinds of limitations as specified in connection with *avadhi*

* The word clairvoyance, it should be noted, is hardly a suitable equivalent for *avadhi jñâna* which embraces a knowledge of some of the past lives of the soul, but in the absence of a more appropriate term we may as well employ it as such.

† The simple perusal of most of the scriptures of the world would suffice to show that many an honest enthusiast has fallen a victim to this form of *ajñâna* (false clairvoyance), and, unable to distinguish the genuine thing from a baseless substitute, has been led to instal himself, in his mind, as a seer and prophet of a divinity which had no existence whatsoever outside his own imagination.

‡ The word telepathy is adopted subject to the observations made in respect of clairvoyance.

jñāna. This is pure thought-reading, and is of two kinds, simple and complex.

The simple form of *manahparyaya jñāna*, technically known as *rijumati*, consists in the knowledge of simple impressions in the mind of another ; the complex, called *vipulamati*, signifies a knowledge of all kinds of thoughts and impressions, whether simple or complex.

CHAPTER XVI.

Parokṣa pramāṇa signifies valid knowledge which is not characterised by the clarity of *pratyakṣa*. Like *pratyakṣa*, *parokṣa*, too, is to be known from personal experience, and cannot be described by means of words.

Some philosophers regard *parokṣa* as that form of knowledge which has the general,* as opposed

* As a matter of fact, things in nature wear both the general and particular aspects at the same time, so that there can be no general without the particular nor the particular without the general. When the special feature of a thing which distinguishes it from other things of the same description happens to be the object of attention, it is the particular, otherwise, that is to say, when emphasis is to be laid on the properties common to the whole class, it is the general that is the object of knowledge. Whoever has realised the impossibility of the general and the particular existing apart from each other will readily perceive that, like the two sides of a coin, they are the two concomitant, complementary and inseparable aspects which all concrete things wear in nature.

to the particular, for its object. But this feature is also to be found in *pratyakṣa*, which directly enables us to perceive the general, and cannot, therefore, be said to be a *laksana* (distinctive mark or feature) of *parokṣa pramāṇa* alone.

Parokṣa consists of the following five types of *pramāṇa*.

(1) *Smṛiti* (memory), or the recalling of that which is already known.

(2) *Pratyabhi jñāna* which arises from the combination of perception and memory, as in the state of consciousness implied in the statement : ‘this is the man’. In this instance, the word ‘this’ connotes present perception, ‘the’ points to a recalled memory ; and from their union arises the idea that the man now perceived is the same who was perceived before. *Pratyabhi jñāna* also includes such knowledge as arises from a comparison between a thing perceived and some other thing remembered. ‘This is like that’ ; ‘that is different from this’ ; and the like are instances of this kind of *pratyabhi jñāna*.

(3) *Tarka* or knowledge of the argument, that is of the invariable relationship, such as that of fire and smoke, between certain things. *Tarka* is the basis of inference, and relates to a rule of universal applicability to be deduced by induction and the observation of facts in nature.

(4) *Anumāna* (inference), i.e., knowledge of

the existence or non-existence of a thing from the knowledge of the relationship it bears to another thing, e.g., the inference of the existence of fire at the sight of smoke.

(5) *Śruta jñāna* which implies knowledge acquired by the interpretation of signs, symbols, words and the like. This form of knowledge depends on *mati jñāna* for its *data*, or raw material, and differs from it in respect of its extent, for while *mati jñāna* is confined to things existing within the range of senses in the present, the *śruta* may transcend these limits both in respect of Time and Space. Thus while an eclipse actually perceived with the senses is known by *mati jñāna*, the one now taking place in a far off country and the one which took place in the reign of Alexander the Great would be known by the *śruta*. The most important form of *śruta jñāna* is *Āgama*, or the Scripture of Truth, i.e., the word of a *Tīrthankara* (God). It is also called *śruti* on the ground of its having been heard from another, and is admitted as a form of *pramāṇa*, because it is the most reliable form of testimony, being the word of an Omniscient Being who is completely devoid of all forms of attachment and aversion, and who has, therefore, absolutely no motive or reason for deceiving or misleading anyone. The word of all other persons is not *śruta*, but *ku-śruta* (false

scripture), because it amounts to testimony which falls short of truth.

The characteristics of a true Scripture are :

- (i) that it should embody the word of an omniscient Teacher ;
- (ii) that its teaching should be true to concrete nature, and not by way of a general discourse on certain abstract propositions of philosophy or on the metaphysical aspect of religion ;
- (iii) that it should speak out the precise truth without fear or favour ; and
- (iv) that its sense should be plain, and not concealed, so that it should not become the cause of misleading any one.

The special attributes of a true Teacher* are :

- (i) that he should have evolved out omniscience which is a guarantee of fulness and perfection of knowledge,
- (ii) that he should be absolutely devoid of all personal motives for love and hatred in any form,

*It may be pointed out here that no disembodied spirit, hence fully liberated Soul, can ever become a teacher, because a purely disembodied spirit is incapable of teaching for the want of a material body, the medium of communication with men. Hence, Scripture is the word of omniscient, deified men, preaching truth before the attainment of final emancipation as pure disembodied Spirit. This is tantamount to saying that it is not possible for an eternally and naturally free Supreme Being, as some imagine their God or Gods to be, to be the author of the Scripture of Truth.

(iii) that he should have completely conquered his lower nature, and .

(iv) that he should have destroyed the bondage of the four kinds of his *ghátiya** *karmas*.

CHAPTER XVII.

Mati jñâna, to be distinguished from *ku-mati* (false *mati jñâna*), arises from the functioning of senses and mind, the former furnishing the raw material for thought and the latter converting it into ascertained truth.

Ku-mati includes all kinds of false and erroneous ideas and notions which may be entertained by thinking beings.

The first step of *mati jñâna* consists in *darsana* or pure sensing, that is in an undifferencing, detail-less cognition of the general features of a thing. This results in the acquisition of knowledge of the class to which the object belongs. Attention then comes into play, and engages itself in marking out the details and features of distinction of the object of enquiry, so that when analysis has furnished all the necessary or required particulars of a thing, intellect sums up (synthesis) the result of the investigation and the culmination of thought, i.e., the ascertainment of truth, is reached.

*These are : (1) *jñânâvaraṇiya*, (2) *darsanâ-varaniya*, *mohaniya* and *antarâya*.

The following four stages occur between *darsana* (pure sensing) and the acquisition of *jñāna* (knowledge).

1. *Avagrha* which means the singling out of an object with reference to its class only, that is the knowledge of its general properties, e.g., to know an object as a man.
2. *Ihâ*, or the attitude of enquiry leading to the ascertainment of truth about the object of *avagrha*, for instance, to enquire whether the object known to be a man be a Londoner. *Ihâ* must be distinguished from doubt which is not a form of *jñāna*.
3. *Avâya*, i.e., the ascertainment of truth in respect of the subject of enquiry, as for instance, the determination or knowledge that the man about whom it was asked, whether he was a Londoner or not, was in fact a Londoner.
4. *Dhâranâ*, that is being impressed with the idea thus formed, so as to be able to recall it subsequently.

CHAPTER XVIII.

Omniscience includes a knowledge of all things that existed in the past, exist now or shall come into existence in the future.

It arises from the free functioning of the

substance of consciousness, unhindered by the knowledge-obstructing influence of matter.*

* There can be no getting away from the fact that the soul can never know anything unless it be endowed with the knowing faculty. The senses only give us impressions, photos or images of objects, but not the knower to cognize them ; and it would be a miracle if they could create the knower, for they are unconscious themselves. There can be equally clearly no doubt but that the soul only perceives its own conditions or states of consciousness in knowing anything else, for very often that which it knows is very different from what is actually perceived, and in many cases what is known is never really perceived with the senses, e.g., ether which is invisible to the naked eye. The existence of a capacity to know, then, is a condition precedent to the consciousness of the soul, and it is evident that this capacity to know is not anything foreign to or acquired by the soul, but its very nature, for, as already observed, the separation of *jñāna* (consciousness) from the *jñāni* (knower) is fatal to both. It is also evident that there can be no limit to the knowing capacity of the soul, for neither reason nor imagination are liable to be limited by aught but the impossible, and though the senses of each and every living being do not embrace the whole range of phenomena, still there can be no doubt but that different beings take cognizance of different things, so that what is invisible to one soul does not necessarily remain unperceived by all. Owls, for instance, perceive objects in the dark ; and it is obvious that the minute little insects which are quite invisible to us must be known at least to the members of their own fraternity, for they breed and multiply. The inference is that while the soul is the knower in its own right, its knowing capacity is obstructed, more or less, in the case of different beings, though consciousness with its special properties—individuality and knowledge—being common to all,

The destruction of the four kinds of *ghātiya*

there can be no differences of quality or quantity in respect of the potentiality of knowledge among them. This conclusion is fully supported by the facts or phenomena of clairvoyance and telepathy of the very existence of which men are almost wholly ignorant in this age, but which have been fully proved to be the natural functions of the soul (see the Proceedings of the Psychical Research Society).

The nature of the soul being pure intelligence, thought (knowledge) or consciousness, the differences in the degree of its manifestation, among the different kinds of beings, as well as among members of the same species, must be due to the influence of some outside force, or agent, whose association or union with the conscious substance (soul) has the effect of depriving it of its pure clarity of knowledge. Unconscious matter is just such an agent, which as described in 'The Practical Path' enters into union with the soul-substance and thereby cripples its knowing powers, more or less, according to the type of bondage (the state of fusion of matter and soul). Thus, the differing types of consciousness depend on the operation of the knowledge-obstructing energies of karma, so that where they are actually in full play the manifestation of the knowing faculty of the soul may be reduced to the sense of touch, as in the case of one-sensed beings (metals and the like), while in the converse case, that is where they are totally eliminated, the full blaze of omniscience must be the reward of the conquering *jīva* (ego). All the intermediate degrees of manifestation of consciousness between these two extremes, it can be seen in a general way, also owe their existence to the destruction or quiescence, or partial destruction and partial quiescence of these energies of knowledge-obstructing karmas, for knowledge being the very nature of the soul may be covered over by the veil of ignorance and 'uncovered' as often as it may, but it cannot be acquired or developed anew, or engrafted

karmas sets the soul free to vibrate at its natural

on an originally unconscious stem.⁵ If we ponder over this statement, we shall not be long in realising that no originally unconscious substance can, by the centralisation, or mirroring of stimulus in a central part, convert it into sensation and itself into a knowing being. The gulf between the conscious and the unconscious is too wide to be bridged over in this manner, and no intellectual jump or acrobatic feat of imagination can even faintly suggest the method by which or the manner in which such a miracle might be effected.

The soul, then, is the knower in consequence of its nature, the purity of which is defiled by the absorption of the unconscious substance—matter. It follows from this that the tearing asunder of the veil of matter, by destroying or checking the energy of *karmas*, which interfere with the knowing capacity of the soul, is the real means of increase of knowledge. Observation shows that passions and emotions considerably interfere with one's knowing capacity and clarity of intellect; and the effect of bias or prejudice on the faculty of judgment is too well known to need comment. Thus, our personal likes and dislikes, as well as passions and emotions, are the causes which interfere with the dawn of *jñâna*. They cause the inflow of matter into the conscious substance, and the fusion of spirit and matter prevents the soul from exercising its natural function in full measure. Another cause of obstruction is the interest in the physical concerns of life which narrows down the zone of knowledge to what is regarded as the immediately useful for the requirements of the physical body. Attention here acts as a porter at the gate, and admits only the desirable, thus shutting the door against all ideas other than those presenting themselves in response to the invitation of the desiring *manas* (lower mind, the seat of desires). We, therefore, conclude that the functioning of consciousness is obstructed by certain kinds of energies, springing into being from personal likes, dislikes,

rhythm*, and to exercise its function of unlimited knowing.

interests, passions, emotions and desires. These energies have been classified under four different heads by the Jaina *āchāryas*, and constitute what are known as the *ghātiya karmas*.

* The rhythm, that is to say, the energy of functioning, of the soul, is of a most complex type, for it knows itself in addition to the object of knowledge at one and the same time, and also because its capacity to know things embraces the whole range of possibility, that which it can never know having no manner of claim to existence.

It follows from this that the natural energy of the soul, as pure spirit—a condition in which no interests or motives or other forms of obstruction remain to shorten the range of consciousness—is of a most complex type in which the rhythm of self-awareness holds together, in an interpenetrating manner, all other possible rhythms of knowledge none of which is denied freedom of functioning and operation. As such, the soul resembles a great melody in which the rhythm of the tune hovers over the rhythms of the notes that enter into its composition, and in which each of the notes, though a separate entity in itself, is nevertheless only an indivisible and inseparable part of the whole.

Now, since rhythm is but another word for an idea in connection with the soul, because knowledge consists in the states of one's own consciousness, by putting the above in the simple language of philosophy, we may say that each perfect, or fully-evolved Soul, being pure consciousness freed from the blinding influence of matter, is actually an all-comprehensive Idea which sums up, as it were, and includes all other possible ideas without a single exception. Hence, the fullest possible knowledge, unlimited by Time or Space, is always the state of consciousness of a deified soul. In other words, the emancipated soul is simply *jñāna mayee* (embodiment of knowledge), being pure consciousness in essence.

CHAPTER XIX.

A being can have from one to four different kinds of knowledge, but if he have only one, it must be *kevala jñâna* (omniscience); if two, *mati* and *śruta*; if three, *mati*, *śruta* and either *avadhi* (clairvoyance) or *manahparyaya* (telepathy); and if four, then all except the first named. The reason for this is that *mati* and *śruta jñânas* are enjoyed by all excepting those who have acquired omniscience. *Avadhi* and *manahparyaya* arise from the observance of rules of conduct laid down for the guidance of ascetics, so that those who acquire them enjoy them along with the other two (*mati* and *śruta*).* *Kevala jñâna* however, arises only when the soul completely withdraws its attention inwards, and, therefore implies a cessation of the functioning of the outward-turned senses and intellect.

Avadhi and *manahparyaya*, being super-sensuous, that is independent of senses and mind, are but limited forms of omniscience, and become merged in it when it arises.

* *Avadhi jñâna*, according to the Scripture, is also enjoyed by great personages, such as *Tirthankaras*, from their birth. In their case it arises as the result of the past good karmas of their souls.

CHAPTER XX.

• *Anumâna* (inference) is of two kinds, *svârthânûmâna* and *parârthânûmâna*, the former implying an inference drawn for one's own satisfaction, that is by oneself, and the latter one that is drawn at the instance or through the words of another.

A *svârthânûmâna* process consists of three parts, namely,

- (i) a *sâdhyâ*, i.e., that which is to be proved,
- (ii) a *sâdhana*, or that which can exist only in relation with, and is, therefore, the determinant of the *sâdhyâ*, and
- (iii) a *dharma*, that is the abode of the *sâdhyâ*.

The *sâdhyâ* also called *dharma*, with reference to its abode the (*dharma*), and the *dharma* are sometimes taken together for the sake of brevity, and called *pakṣa*. In such a case there are only two limbs of the *svârthânûmâna* syllogism, the *pakṣa* and *sâdhana* or argument, also called *hetu*.

The *sâdhyâ* may be defined as that which is *shakya* or *abâdhita* (not opposed to or contradicted by direct perception or inference), *abhipreta* or *ishta* (which the disputant* wishes to establish)

* The ancients employed the terms *vâdi* and *prati-vâdi* respectively for the theorist and the opponent who raises all sorts of objections against the validity of a proposition propounded by the *vâdi*. The *prati-vâdi* is an imaginary being whose sole *raison d'être* lies in the desire to establish the

and *aprasiddha* or *asiddha* (which has not been ascertained as yet).

It will be seen that the insistence on the quality of *shakya* is intended to save fruitless speculation, while the confining of the investigation to an *aprasiddha sâdhyâ* is calculated to prevent the re-opening of an already settled point.

The *sâdhanâ* is a necessary part of a syllogism, because it is the mark of that which is to be proved, while the *dharma* is required to localize the *sâdhyâ*, for otherwise we might have smoke on a hill-top giving rise to an inference of the existence of fire in a lake, which would be absurd. The absence of a *dharma* reduces *anumâna* to *tarka*, for in the absence of an abode, the inference only amounts to a repetition of the abstract relationship between the *sâdhyâ* and the *sâdhanâ* of a syllogism.

The *dharma* may be either,

- (1) *pramâna prasiddha*, i.e., that which is known by *pramâna*,
- (2) *vikalpa prasiddha*, which is taken for granted, or supposed, or
- (3) *pramâna-vikalpa prasiddha*, i.e., that which partakes of the nature of *pramâna* and *vikalpa* both.

truth of a proposition by refuting all possible objections that can be raised against its validity. He is also useful as a nameless substitute for criticising a sensitive rival.

Illustrations.

- (a) This hill is full of fire, because it is full of smoke.
- (b) The horns of a hare are non-existent, because no one has ever seen them.
- (c) Man is the master of his destiny, because he has the power to control his actions.

[Illustration (a) is an instance of the *pramāṇa prasiddha dharmi*, because 'this hill' (*dharma*) is the immediate object of preception.

The *dharma* of illustration (b) is *vikalpa prasiddha* because the 'horns of a hare, (*dharma*), being purely imaginary, can never be established by *pratyakṣa* or any other kind of *pramāṇa*.

The *dharma* of the third illustration is *pramāṇa-vikalpa prasiddha*, because it (man) includes those who are the object of *pratyakṣa* as well as those that are *vikalpa prasiddha*.]

CHAPTER XXI.

Pararthānumāna means the knowledge of *sādhyā* from its *sādhana* arising in the mind* in conse-

* Some logicians hold the speaker's word itself to be the *pararthānumāna*, but this is not correct, for the speech of another may be the occasion for knowledge or inference, but is never so itself. The real basis of inference in *pararthānumāna*, as in *svarthānumāna*, is the logical connection (*vyāpti*) between the *sādhana* and its *sādhyā*. Suppose we hear some one say: 'there is fire in this hill, because there is smoke on it.' The statement fulfils all the requirements of a valid syllogism so far as the speaker himself is concerned, but it is obviously little or no better than verbal testimony for the hearer, for unless his own mind lend assent to the proposition, he cannot be said to have drawn an inference.

quence of the speech of another. It consists of two* parts, *pratijña*, and *hetu*.

Pratijña means the proposition to be proved, and

* It is said in Gautama's Nyaya *Darśana* that there are not two but five limbs of a syllogism of the *parārtha-anumāna* type, namely,

- (1) *pratijña*,
- (2) *hetu*,
- (3) *udāharana* (illustration),
- (4) *upanaya*, (statement showing the presence of the *sādhana* in the *dharmi*), and
- (5) *nigamana* (conclusion).

The following is an illustration of a five-limbed syllogism :

- (i) This hill is full of fire (*pratijña*) ;
- (ii) Because it is full of smoke (*hetu*) ;
- (iii) Whatever is full of smoke is also full of fire, as a kitchen (*udāharana*),
- (iv) So is this hill full of smoke (*upanaya*) ;
- (v) Therefore, this hill is full of fire (*nigamana*).

Gautama, however, ignores the fact that *parārtha-anumāna* differs from *svārtha-anumāna* only in so far as it arises at the instance of another, so that the true basis of inference and the form of syllogism are identically the same in both the types of *anumāna*. Hence, the statement of *pakṣa*, called *pratijña* in a *parārtha-anumāna*, and *hetu* are alone needed in an inference at the instance of another. It is obvious that the true basis of *anumāna* is always the force of *vyāpti* (logical connection), so that the moment this relationship is asserted by mentioning the *sādhana*, smoke and the like, mind is immediately led to that which is inseparably connected therewith, and discovers the *sādhya*.

This operation is performed of one's own accord in *svārtha-anumāna*, but at the instance of another in the second kind of inference. In both cases, however, it is one's own mind that

hetu is the statement of the logical connection, called *vyāpti*, advanced in proof thereof.

Illustration.

There is fire in this hill (*pratijña*), because there is smoke on it (*hetu*).

draws the inference. *Upanaya* and *nigāmaṇa*, besides serving no useful purpose, are also objectionable as pure repetition of what is already stated in the *pratijña* and *hetu*; and *uddharana* would reduce logic to a child's play. For while it may be necessary to cite an actual instance of *vyāpti* (logical connection) in a *veetrāgakathā* (lecture to a pupil) to enable little children to familiarize themselves with the basis of inference, it is bad rhetoric to do so in the course of a *vijigishu-kathā* (logical discussion) with a clever and presumably learned opponent. And, after all *uddharana* only tends to establish the validity of *vyāpti*, and may be useful in showing the necessary relationship between the *sādhana* and its *sādhyā*; it is of no real help in *anumāna* which pre-supposes the knowledge of this relationship.

The modern syllogism of three steps, or propositions, as they are called, is also open to objection for similar reasons. It is the culmination of a highly elaborate system of ratiocination, it is true, but it is no less true that the system of which it is the outcome is not a natural but a highly artificial one. The practical value of modern logic, as a science, is to be judged from the fact that its inferential processes, though suitable, to a certain extent, for the purposes of the school-room, are never actually resorted to by men—not even by lawyers, philosophers and logicians—in their daily life, nor can they be carried out without first bending the current of thought from its natural channel, and forcing it into the artificial and rigid frame-work of an Aristotelian syllogism.

The syllogism that answers the practical requirements of life and is natural to rational mind, then, consists of two and only two steps—*pratijñā* and *hetu*.

CHAPTER XXII.

There are two ways of stating the inseparable logical connection, affirmatively, called *anvaya*, as in the statement, ‘wherever there is smoke there is fire’; or in the negative, known as *vyatireka*, e.g., ‘where there is no fire there is no smoke.’

A *hetu* of the first kind is called *upalabdhī*, and of the second *anupalabdhī*.

The *upalabdhī* and *anupalabdhī hetus* are further sub-divided into two kinds each, the *bidhi-sâdhaka* and the *nikheda-sâdhaka*. The *bidhi-sâdhaka* are those which prove the existence and the *nikheda-sâdhaka* those that establish the non-existence of some fact.

Hetu may also be of a contradictory or of a non-contradictory type. The former, called *virudhi*, implies the existence of a fact which is incompatible with the *sâdhyā*.

Illustration.

There is no fire in this pitcher, because it is full of water.

The non-contradictory (*aviruddhi*) *hetu* is the argument which is not based on any fact incompatible with the existence of the *sâdhyā*.

Illustration.

There is fire in this hill, because there is smoke on it.

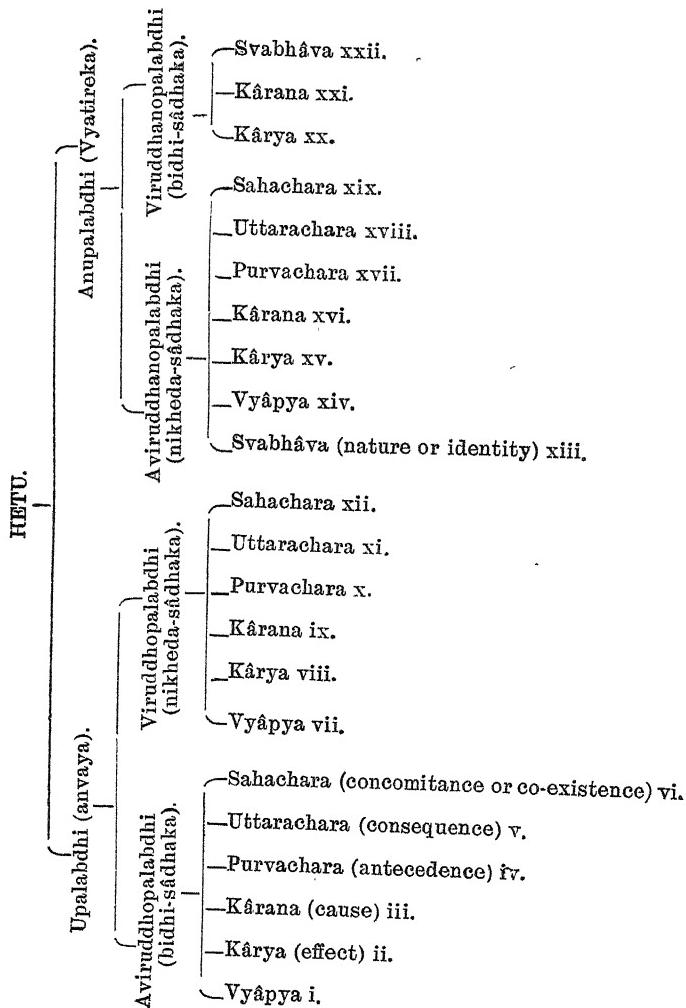
CHAPTER XXIII.

The necessary logical connection, called *sâdhyâ-nyathânupatti*, *avinâbhâva* or *vyâpti*, is the basis of inferential validity, for otherwise one might infer the existence of water at the sight of smoke. There are the following five kinds of logical relationship between the *sâdhana* and its *sâdhya* :

- (1) *Vyâpya*, or the relationship of part to the whole,
- (2) *kîrya-kârna*, i.e., causal connection,
- (3) *purvachara-uttarachara*, that is antecedence and consequence,
- (4) *sahachara*, or co-existence, and
- (5) *svabhâva* which means peculiarity of nature, or identity.

Of these, the second and the third categories embrace two types each, because the relationship of cause and effect and antecedence and consequence may be made to yield an inference relating to either the cause or its effect and to antecedence or consequence respectively. Thus, there are seven different kinds of relationship which give rise to a valid inference.

The following table will be found to combine the conclusions reached in this and the next preceding chapter, and to specify the different kinds of logical connection, with due regard to the classification of *hetu*.



*Illustrations.**

- (i) Sound is subject to modification, because it is a product.†
 - (ii) There is fire in this hill, because there is smoke on it.
 - (iii) We shall have rain, because rain-clouds‡ are gathering.
 - (iv) It will be Sunday to-morrow, because it is Saturday to-day.
 - (v) Yesterday was a Sunday, because it is Monday to-day.
-

* The numbering of these illustrations corresponds to the figures in the tabulated classification of *hetu*.

† Here sound falls in the larger category of products which is characterised by the quality of being subject to modification. Therefore, being *vyāpya* (included) in the larger class (*vyāpaka*), it is liable to have the distinguishing feature of the whole class predicated of itself. When put in the form of a modern syllogism, this illustration would read :

All products are liable to modification ;

Sound is a product ;

Therefore, sound is liable to modification.

‡ Some logicians do not consider *kāraṇa* (cause) to be a true *hetu*, on the ground that it is not always followed by its appropriate effect (*kārya*) ; but this is clearly wrong, since the true *kārya* always implies an active, potent (*sāmarthyā*) cause which nothing can prevent from producing its effect. In the instance of rain-clouds, the absence of all those causes which prevent them from giving rain is presumed and implied. The following is an instance which fully illustrates the force of *kāraṇa* as a true *hetu* : 'there is shade in this place because we have an open umbrella (the cause of shade) here.'

- (vi) This mango has a sweet taste, because it is ripe-yellow in colour.*
- (vii) There is no cold here, because (its antithesis, that is) fire is present here.
- (viii) There is no feeling of cold here, because there is smoke here (which is the effect of the antithesis of cold).
- (ix) This man is not happy, because he has present in him the causes of misery (the antithesis of happiness).
- (x) To-morrow will not be a Sunday, because it is Friday to-day.
- (xi) Yesterday was not a Friday, because it is Tuesday to-day.
- (xii) This wall is not devoid of an outside, because it has an inside (the *sahachara* of the outerside).†
- (xiii) There is no jar in this room, because its *svabhāva* (identity) is not to be found (that is nothing resembling its identity is present) in it.
- (xiv) There is no oak in this village, because there is no tree here.
- (xv) There are no (*sāmarthyā*=potent) rain-clouds here, because it is not raining here.
- (xvi) There is no smoke in this place, because there is no fire in it.
- (xvii) It will not be Sunday to-morrow, because it is not Saturday to-day.
- (xviii) It was not Monday yesterday, because to-day is not Tuesday.

* This illustration proceeds on the principle of concomitance or co-existence of colour and taste, so that the presence of the one is an index to the existence of the other.

† Another instance of the principle of co-existence.

- (xix) The right-hand pan of this pair of scales is not touching the beam, because the other one is on the same level with it.
- (xx) This animal is suffering from some disease, because it does not look healthy.
- (xxi) This woman is feeling unhappy, because she has been forcibly separated from her lover.
- (xxii) All things are *anekāntic* (possessed of different aspects), because they do not enjoy absolutely one aspect alone.

CHAPTER XXIV.

Many-sidedness* is an important characteristic of *pramāna* (valid knowledge) because things in nature wear that aspect.

The immediate fruit or effect of *pramāna* is the

* Obviously knowledge must correspond to nature to be valid, so that it should know things as they actually exist. The form in which things exist is *dravya-paryāya-rupa* (*dravya*=substance, *paryāya*=condition or form, and *rupa*=aspect) from one point of view, *nitya-anitya* (*nitya*=eternal and *anitya*=transient) from a second, and *sāmānya-visheṣa* (*sāmānya*=general and *visheṣa*=particular) from a third, and so on. A gold ring, for instance, is neither a substance (gold) nor a form or condition ('ringness') alone; it is gold in the form of a ring. This is what is meant by the *dravya-paryāya-rupa*, for no substance can possibly exist without a form. Similarly, every thing is *nitya-anitya*, for while incessant changes of form follow one another, on the one hand, no change whatsoever takes place in the material basis of those changes themselves, on the other. The same is the case with the *sāmānya-visheṣa* nature of things, each of which belongs to a class and is yet distinct from all other members of its species. It thus exhibits

removal of ignorance ; indirectly, it enables one to adopt of that which is good and to avoid the harmful. *Pramâna* ultimately leads to *mokṣa* (*nirvâna*), the goal of soul's evolution.

CHAPTER XXV.

According to Buddhist logicians, the true *hetu* should possess the following three characteristics :—

- (i) it should be present in the *pakṣa*,
- (ii) it should also exist in the *sapakṣa*, and
- (iii) it should not be found in the *vipakṣa*.

The *pakṣa* has already been explained to mean the *sâdhya* and its abode, the *dharma*; but *sapakṣa* is the place where the *sâdhana* and *sâdhyâ* are known to abide in some already familiar instance, while *vipakṣa* embraces all other places where the very possibility of the existence of the *sâdhyâ* is counter-indicated.

Illustration.

This hill (*pakṣa*) is full of fire,
Because it is full of smoke;
Whatever is full of smoke is full of fire, as a kitchen
(*sapakṣa*):
Whatever is not full of fire is also not full of smoke, as a
pond (*vipakṣa*).

qualities which are common to the whole class together with those special features of its own which are not to be found in any other member of that class. This amounts to saying that neither the absolutely general nor the absolutely particular can ever exist by itself in nature.

The Naiyayakas* add two more attributes to the above three of the Buddhist *hetu*, making them five in all. These additional attributes are :

- (iv) it should not establish the opposite of the *sâdhyâ* by any forcible or necessary implication, and
- (v) it should not leave the matter in doubt by equally forcibly suggesting the existence of the opposite of that which is to be proved.

The distinction between these two attributes lies in the fact that while the former actually proves the existence of the opposite of that which was to be proved, the latter simply leaves the matter in doubt by affirming the existence of both, the *sâdhyâ* and its opposite, with an equal degree of logical force.

Both these views are, however, erroneous, for neither the first three nor all the five features, as enumerated by the Naiyayakas, constitute the true characteristics of a *hetu*, the distinguishing feature of which is the *unvarying and the universally true connection between the sâdhana and its sâdhyâ*.

- It is possible for a given *hetu* to exhibit all the five attributes insisted on above and yet to be no true *hetu* at all.

*The Naiyayakas are the followers of the Nyaya school of philosophy founded by Gautama.

Illustrations.

1. It will be Sunday to-morrow, because it is Saturday to-day.

[Here to-morrow is the *pakṣa*, Sunday the *sādhyā*, and Saturday the *hetu*. Hence, if the argument of the Buddhists and Naiyayikas were correct, and *hetu* did reside in the *pakṣa*, we should have Saturday residing in to-morrow, which is absurd.]

2. The unborn child of Z will be of a dark complexion like all other children of Z who are dark-complexioned, because he will be a child of Z.

[By analysing this example, we get :

- (i) *pakṣa*=the unborn child of Z,
- (ii) *sapakṣa*=the existing children of Z.,
- (iii) *vipakṣa*=children of others,
- (iv) *sādhyā*=having a dark complexion, and
- (v) *hetu*=the quality of being Z's child.

Here it is obvious that although the *hetu* resides in the *pakṣa* and *sapakṣa* and is not to be found in *vipakṣa*, thus fulfilling the three requirements laid down by Buddhist logicians, it is none the less no true *hetu*, since there is no necessary connection between the unborn child of Z and a dark complexion, it not being the order of nature that whoever is a child of Z must be dark-complexioned.

The same considerations apply to the view of the Naiyāyikas, because the *hetu* (the quality of being a child of Z) also proves neither the existence nor the co-existence of the opposite of the *sādhyā* (dark complexion). Thus the illustration furnishes all the five requisites of a Naiyāyaka *hetu*, and yet the conclusion arrived at sufficiently demonstrates its invalidity.]

It should be further observed that the *sapakṣa* and *vipakṣa* are not to be found in each and every argument.

Illustrations.

1. Things invisible to us are perceptible by some one, because they are proved by inference; whatever is proved by inference is also perceived by some one, as fire, etc.

[Here 'things invisible to us' is the *pakṣa* and 'fire, etc.' the *sapakṣa*, but there is no *vipakṣa*, for the first two, that is the *pakṣa* and *sapakṣa*, exhaust all objects.]

2. A living organism is characterised by the presence of the soul, because it breathes; whatever is not characterised by the presence of the soul does not breathe, as a clod of earth.

[This is an opposite case to that in the preceding illustration, as there can be no *sapakṣa* here, for all things are either living organisms (*pakṣa*) or not characterised by the presence of the soul (*vipakṣa*), the clod of earth being not an illustration of *sapakṣa* (where the *śidhiya* and *sādhana* are to be found together) but only a form of *vyatireka vipakṣa*.]

Where the *hetu* does not admit of a *vipakṣa* it is called *kevalānvayi* (purely *anvaya* in form); where it precludes the possibility of *sapakṣa*, it is termed *kevala* (purely) *vyatireki*; and in all other cases, that is where it takes both the *anvaya* and the *vyatireka* form, it is known as *anvya-vyatireki*.

It must be clear now that the Buddhists and the Naiyayikas have altogether lost sight of the *kevalānvayi* and *kevala vyatireki* forms of *hetu*.

CHAPTER XXVI.

Ābhāsa (fallacy) is a falsehood which has the appearance of truth. There are many kinds of fallacy—one corresponding to every limb, or part,

of *pramâna*. The important ones of these will alone be described here.

Pramâñâbhâsa includes all those forms of ignorance—doubt, error and the like—which are characteristic of untruth.

Tarkâbhâsa is the setting up of an inseparable connection between objects which are independent of each other, e.g., ‘wherever there is smoke, there is lime.’

Paksâbhâsa is the fallacy of proposition, and arises in the following cases :—

(a) When an unproved proposition is taken as proved, e.g., ‘there is a maker of the universe.’

(b) When the statement made is incapable of being proved, e.g., ‘everything is perishable.’

(c) When it is opposed to truth as established by direct perception, e.g., ‘things are not characterised by many-sided-ness.’

(d) When it involves a construction which is opposed to the accepted sense of words, e.g., taking a sister to mean a wife.

(e) When it contradicts *anumâna*, e.g., ‘there is no omniscient being.’

(f) When it is fatal to its own validity, e.g., ‘nothing exists.’

Hetvâbhâsa is the fallacy of *hetu* (reason), and is of four kinds.

(1) *Asiddha hetvâbhâsa* which is either

(i) *sarupâsiddha*, whose falsehood is a matter of certainty, as in the instance, 'sound is perishable because it can be seen with the eye'; or

(ii) *Sandigdhusiddha* which implies an uncertainty about the existence of the *sâdhana* itself. It will be seen that where the very existence of the *sâdhana* be involved in doubt, validity of inference cannot be guaranteed, as for instance where it is uncertain whether what is seen be smoke or only vapour, no valid inference can be drawn about the existence of fire in the *pakṣa*.

(2) *Viruddha hetvâbhâsa* which is inseparably connected not with the *sâdhya*, but with its antithesis. An instance of this is: 'sound is eternal, because it is an effect.' Here obviously the quality of being an effect is connected with perishability, since effects are always compound and, sooner or later, resolve into their elements.

(3) *Anaikântika hetvâbhâsa* occurs when the *hetu* is to be found in all the three, the *pakṣa*, *sapakṣa* and *vipakṣa*.

The effect of the presence of the *hetu* in the *vipakṣa* is to rob the conclusion of that logical validity which *anumâna* directly aims at.

The *anaikântika hetvâbhâsa* is of two kinds, (1) the *nishchita vipakṣa vritti* where it is certain that the *hetu* resides in the *vipakṣa*, and (2) the

śankita vipakṣa vritti where the matter is involved in doubt.

Illustration.

(i) Sound is perishable, because it is knowable.

[This is an instance of the *nischita vipakṣa vritti* type, because it is certain that the quality of knowability resides not only in perishable things, but also in those that are imperishable, e.g., space, souls and the like.]

(ii) Watches are fragile, because they are manufactured with machinery.

[This is an instance of the *śankita vipakṣa vritti*. The fallacy in this case lies in the fact that it is not certain whether the quality of being manufactured with machinery does or does not reside in things which are not fragile, i.e., the *vipakṣa*.]

(4) *Akinchitkara hetvābhāsā* is the fallacy of redundancy. This is also of two kinds.

(a) The *siddhasādhana* which means the establishing of that which has already been proved by some other kind of *pramāṇa*.

Illustration.

Sound is heard by the ear, because it is sound.

(b) The *bādhita viṣaya* which relates to a proposition inconsistent with *pratyakṣa* (direct observation, or *jñāna*), logical inference, scriptural text or its own sense.

Illustrations.

(i) Fire is not endowed with warmth, because it is a substance (inconsistent with *pratyakṣa*.)

(ii) Sound is unchanging, because it is not an effect (inconsistent with *anumāna*.)

(iii) *Dharma* (virtue or righteousness) is the cause of pain, because it resides in man. (Inconsistent with Scripture according to which *dharma* is the cause of happiness.)

(iv) *Z* is the son of a barren woman, because she has never conceived (inconsistent with the proposition itself).

Drṣṭāntābhāsa occurs when a *drṣṭānta* is not an appropriate illustration. This is of two kinds :—

- (i) *Sādharma* or *anvaya drṣṭāntābhāsa* and
- (ii) *Vaidharmya* or *vyatireka drṣṭāntābhāsa*.

The *Sādharma* fallacy arises when a negative illustration is given in place of an affirmative one.

Illustration.

There is no *sarvajñya* (omniscient being), because he is not apprehended by the senses, like a jar.

[The illustration should have been of something not perceptible with the senses.]

The *vaidharmya* is the opposite of the *sādharma*.

Illustration.

Kapila is omniscient, because he is beset with desires, like the *arhanta* (Tirthaṅkara).

[Here the comparison should have been with some one who became omniscient without giving up his desires, not with the *Arhanta* who is absolutely desireless.]

Every illustration has reference to either the *sādhya*, or *Sādhana*, or both. This gives us three forms of the *anvaya* and three of the *vyatireka drṣṭāntābhāsa*.

Illustrations.

(i) Word is *apaurusheya* (unproduced by man), because it is devoid of sensible qualities; whatever is devoid of sensible qualities is *apaurusheya*, like

- (a) sensual pleasure,
- (b) an atom, or
- (c) a jar.

[Here (a) is an instance of the wrong illustration of the *sâdhyâ* (because sensual pleasure is the opposite of *apaurusheya*), (b) of the *sâdhana* (an atom is not devoid of sensible qualities), and (c) of both, the *sâdhyâ* and *sâdhana* (for a jar is neither *apaurusheya* nor devoid of sensible qualities). These are instances of the *anvaya dr̥ṣṭāntâbhâsa*.]

(ii) Word is *apaurusheya*, because it is *amurtika* (devoid of sensible qualities); whatever is not *apaurusheya* is not *amurtika*, as

- (a) an atom,
- (b) sense-gratification, or
- (c) Space.

[This is a threefold illustration of the *vyatireka dr̥ṣṭāntâbhâsa*. The atom, being *apaurusheya*, does not furnish an instance of the not-*apaurusheya* quality; sense-gratification is not not-*amurtika*, and space is neither not-*apaurusheya* nor not-*amurtika*.]

Anvaya dr̥ṣṭāntâbhâsa also occurs where the order of the *sâdhyâ* and *sâdhana* is reversed in the exemplification of *hetu*.

Illustration.

There is fire in this hill,

Because there is smoke on it;

Wherever there is fire there is smoke (*anvaya dr̥ṣṭāntâbhâsa*.)

[The true form of the *anvaya* exemplification here should be: 'wherever there is smoke there is fire.']}

Similarly, *vyatireka dr̥ṣṭāntābhâsa* also occurs when the *sâdhya* and *sâdhana* replace each other in *vyatireka* exemplification.

Illustration.

This hill is full of smoke,
Because it is full of fire ;
Whatever is not full of smoke is also not full of fire.
[The fallacy is obvious, for there may be fire without smoke.]

Bâlaprayogâbhâsa (*bâla*=pertaining to children, *prayoga*=practice, and *âbhâsa*=fallacy) consists in not mentioning all the necessary limbs—proposition, *hetu*, *uddharana*, *upanaya* and *nigamana* (see footnote to p. 42 ante)—of a school-room syllogism. This fallacy also occurs when these limbs are given in a wrong order.

Sâṅkhyâbhâsa is a fallacy in reference to the sources of *pramâṇa* (valid knowldg) which are

- (i) *pratyakṣa* (direct knowledge),
- (ii) *anumâna* (inference), and
- (iii) *âgama* (Scripture).

This kind of fallacy consists in denying any or all of these three sources, because while *pratyakṣa* is the immediate destroyer of doubt and ignorance, the validity of logical inference cannot be ignored, and testimony, provided it be the word of a qualified observer and absolutely unimpeachable, is certainly the only source of knowledge of things beyond perception and inference both.

Āgamābhāṣa is that form of fallacy which consists in regarding the word of an unqualified teacher as the Scripture of truth. This fallacy also occurs when the true Scripture is misquoted to support a false proposition.